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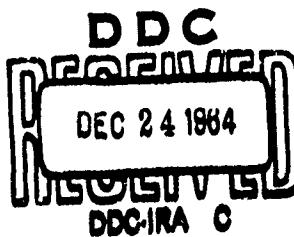
THE FIELD EXPERIENCE OF A MEDICAL CIVIC
ACTION TEAM IN SOUTH VIET NAM

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The Field Experience of a Medical Civic Action Team in South Viet Nam

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From April to December 1963, Medical Civic Action Team 20 operated in the vicinity of Danang, South Viet Nam. This team was a Military Advisory and Assistance Group unit and worked with a counterpart unit from the Army of the Republic of Viet Nam to implement a program of medical civic action. The mission of this program was to improve the relationship between the population and the government of South Viet Nam by improving the health and medical care of the population. South Viet Nam is a developing nation, and there are only very sparse medical facilities outside the larger cities and province capitals. The basic method of operation of our team and of most of the other teams in the program was to maintain a program of sick calls in villages and hamlets where the people had previously had little or no access to medical care.

A typical village sick call held by our team required 6 people, 1 to 3 of whom were American advisors. Generally two senior medical corpsmen operated the screening and examining section; two corpsmen ran the dispensing and treatment section; and two enlisted men maintained records. The patient was allowed to keep a clinical sheet listing his vital data, diagnosis, and treatment, and these data were recorded in our log book. Our equipment was limited to what we could carry along with our men in a field ambulance or helicopter. Our medical supplies were drawn from a list of 140 items funded by the Agency for International Development



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and supplied through the medical depot system of the Army of the Republic of Viet Nam (ARVN). A small lab set was available part of the time for use in the field.

During eight months' experience with civic action, we made 121 village visits and saw 20,079 patients. The following data and discussion are based on a summary of our records and personal experience.

Pattern of Village Visits

Table I shows our pattern of village visits. In general we tried to make weekly revisits to each village; however, it can be seen that we gradually changed villages in working through the Hoa Vang district. At this point it should be made clear that many of the other civic action teams used different methods of operation and rarely returned to the same village, but constantly visited new areas throughout their province. Of the total number of patients seen, 45 per cent were children and 39 per cent were women.

Most of the villages visited were fairly large (600 to 3000 population) during the first 6 months of our operation, and the average number of patients seen per sick call

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TABLE I
THE PATTERN OF VILLAGE VISITS

	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.
Binh Dinh	41 (1)								
Tan Thai		499 (4)	631 (5)	744 (3)	1332 (6)			381 (2)	381 (3)
An Hao		94 (1)							
Xuan Hoa		349 (3)	816 (6)	987 (4)	1248 (5)	180 (1)			
Thanh Khe		410 (3)	752 (4)	1095 (4)	1523 (5)	1179 (4)	356 (2)		
Phu Lac				180 (1)	492 (3)	277 (3)			
Hoa Phu				402 (2)	140 (1)				
Viet An				127 (1)					
Hoa O						598 (3)	491 (4)	552 (4)	269 (3)
Da Son						330 (1)	262 (4)	414 (5)	117 (2)
Phong Le Bac						213 (1)			
Hoa Vinh							450 (3)	230 (2)	390 (3)
Kim Lien							360 (3)	348 (3)	152 (2)
Hoa Thinh							135 (1)		

Total patients: 20,079. Total visits: 121.

was 184 during this period. With two people examining patients and a separate dispensing section, the average sick call required 3 to 4 hours. The weekly revisits allowed fair patient followup. Succeeding village visits generally produced smaller sick calls probably because of the inattendance of those villagers motivated mainly by curiosity.

Prior to visiting any village, we would discuss the prospect with the district chief particularly with regard to security requirements. Next it would be necessary to visit the village or hamlet chief to arrange the details of time and place and to insure that all villagers were informed of our visit. The coopera-

tion of the village chief is an absolute requirement; and if good rapport cannot be established with him, the sick call program will not be a success in that village.

Frequently Encountered Diseases

Table II shows the ten most common diagnoses made in our civic action program. In the period of March through June, a physician and a field lab set were almost always available to see patients and assist the senior medical corpsmen in reaching a satisfactory conclusion. Especially during this period and also throughout the duration of our program, repetitious discussion of the require-

TABLE II
THE TEN MOST COMMON DIAGNOSES MADE ON MEDICAL CIVIC ACTION

	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Total
Arthritis	2	245	416	492	742	635	212	107	84	2935 (15)
Bronchitis	5	318	525	601	492	414	269	192	111	2927 (15)
Pyoderma	0	316	586	683	420	398	149	219	40	2811 (14)
Helminthiasis	5	318	414	319	446	301	320	245	133	2411 (12)
Headache	6	316	242	309	406	342	154	72	106	1953 (10)
Upper GI Pain	2	212	201	419	302	209	83	27	54	1511 (8)
Chest Pain, C/U	4	186	193	287	385	296	84	17	22	1474 (7)
Conjunctivitis	1	182	201	308	284	319	64	66	28	1453 (7)
Anemia	3	176	219	267	356	306	40	19	12	1398 (7)
Otitis Media	0	105	241	301	326	225	62	25	38	1323 (7)

The numbers in parentheses represent the per cent of the total patients seen. 20,079.

ments for these diagnoses was carried out with the examining NCO's. Available lab tests during the initial period consisted of blood smears and counts with hemoglobin determination, urinalysis, stool examination for blood, ova and parasites, and Gram's and acid fast stain of sputum or purulent material. Apparently the decrease in physician attendance at the sick calls did not cause any great change in the frequency of the most common diagnoses.

There were relatively few patients who did not fit in one of these diagnostic categories, and two thirds of the total were found in the first five. As might be expected most of the cases of arthritis were elderly patients with osteoarthritis, although a few cases of rheumatoid arthritis and gout were seen. The bronchitis category includes both the acute and chronic variety. During the interval that we carried facilities to the field for acid fast stain, a positive diagnosis of pulmonary tuberculosis was made on nearly every village visit. Occasionally a case of pneumonia was seen. Perhaps the most striking sight for any casual visitor to a Vietnamese village is the large number of skin infections in the children particularly over their scalps. Also scabies is common in the children. Most of the cases of parasite infestation occurred in children and young adults and these people often had very high eosinophil counts. The chest pain of the sixth category was the vague non-pleuritic type commonly seen in clinics everywhere. No more than one or two cases of straightforward coronary artery disease were seen. Atherosclerotic cerebrovascular disease was seen occasionally, and these patients were elderly normotensives. Upper gastrointestinal complaints were common, and some of these patients gave convincing histories for peptic ulcerative disease. Diarrhea was rare. A few cases strongly suggestive of amebic dysentery were seen, but no lab proof was secured for these. Anemia, customarily associated with helminthiasis, was common and usually found in women of the childbearing age. Many of the cases of anemia were studied by blood counts and

these always revealed hypochromia and microcytosis. Hemoglobin electrophoresis was carried out in a number of these patients, but failed to demonstrate a causative hemoglobinopathy. Most of the cases of conjunctivitis were of the acute purulent variety though some appeared to be trachoma. In the pediatric group, chronic purulent otitis media was a common finding.

With the exception of helminthiasis, tropical diseases as a group were no great problem. Malaria has been almost eradicated from the coastal regions of South Viet Nam where our program was carried out. In our experience, ascariasis was found more commonly than hookworm; tapeworm infestation was less frequent and trichuriasis was seen infrequently. An occasional case of leprosy was seen and some of these were far advanced. Asthma and other pulmonary complaints were often associated with eosinophilia, but the lack of x-ray facilities made a diagnosis of tropical eosinophilia syndrome impossible. Tropical ulcer of the extremities was sometimes seen, and this responded well to treatment.

Surgical requirements in general were few, but incision and drainage was often required for treatment of the numerous skin infections. A few old projectile injuries were treated, but none of these were recent. An occasional case of fresh laceration was presented at sick call. Nephrolithiasis was the most common major surgical diagnosis. Women sometimes complained of leukorrhea, but since we lacked the capacity for gynecologic exam, further diagnosis was impossible.

Some evidence of mild nutritional deficiency was sometimes seen, but no cases of frank beri-beri were seen. The most common finding suggesting nutritional deficiency was mild peripheral neuropathy. Parental mismanagement of infant feeding was not uncommon, and the marasmus syndrome was occasionally seen.

The Most Commonly Used Medicaments

Table III shows the frequency of dispensing the most commonly used medicines on civic action. The change in the frequency of

TABLE III
FREQUENCY OF PRESCRIPTION OF THE MOST COMMONLY USED MEDICINES ON CIVIC ACTION

Medicament	March	April	May	June	July	Aug	Sept.	Oct.	Nov.	Total ¹
Salicylates	21	461	658	801	1148	342	699	82	101	4313 (45)
Brown's mixture	7	318	525	601	492	414	252	167	172	2948 (15)
Piperazine	5	318	414	319	446	301	230	281	146	2460 (12)
Vitamins	4	186	193	287	385	296	297	380	307	235 (12)
Iron tablets	4	176	219	267	284	319	239	111	46	1665 (8)
Bicarbonate tabs	6	141	228	285	312	485	137	29	34	1657 (8)
Furacin oint.	10	105	241	361	326	225	62	62	58	1455 (7)
Oxytetracycline ophthalmic ointment	0	105	240	357	302	212	60	61	33	1370 (7)
Surgical soap	0	22	61	111	127	70	93	56	45	585 (3)
Sulfisoxazole	1	5	31	93	57	46	75	130	123	561 (3)
Penicillin	6	47	71	57	43	19	8	2	5	258
Polymixin B otic	1	18	25	30	60	21	39	23	23	240
Tetracycline tabs	4	61	39	13	11	20	19	15	12	194

The numbers in parentheses are the per cent of the total patients seen: 20,079.

prescription of some items in the last two months may be due in part to the gradual withdrawal of American participation during this time. Since headache, vague chest pain, and arthritis were three of the most common diagnoses, it is easy to understand the great frequency of prescription of salicylates. As might be expected, the elderly patients with osteoarthritis returned each week for their aspirin. Of course other simple medications were very useful—witness the frequency of sodium bicarbonate and Brown's mixture tablets. Piperazine was frequently used, but a more efficacious drug is hexylresorcinol which, if repeated, will eliminate hookworms and part of the tapeworm as well as ascariasis. Because of the frequent infestation with both ascaris and hookworm, tetrachlorethylene has only limited usefulness. The vitamins dispensed were multivitamin preparations for the most part, but simple thiamine tablets could have served for 95% of our adult vitamin requirements. Iron tablets were frequently required, but it was sometimes difficult to use these properly because of failure of the patient to return each week, and area security usually prohibited dispensing large quantities of medicine. Since the peasant population of the areas visited would eat only two meals daily, we

prescribed 14 tablets per week. It can be seen that over three-fourths of our patients could be treated out of six medicines: salicylates, Brown's mixture, piperazine or hexylresorcinol, vitamins, sodium bicarbonate tablets, and iron tablets. Furacin ointment and soap were the mainstays of our treatment for pyoderma in children. The frequency of penicillin injections depended on the presence of a physician. Naturally, long acting and oral penicillins are useful in this type of program. I taught my senior medical corpsmen to use tetracycline for the severe infections, and it seemed that more demonstrable good was done with this drug, and perhaps sulfisoxazole in addition, than any other item in our medicine chest. Because of the warm climate and high incidence of nephrolithiasis, sulfadiazine was not used even though it was available. Polymixin B otic was a useful agent for the external otitis frequently found in conjunction with otitis media. The ophthalmic ointment used most often was an antibiotic preparation, and, fortunately, we were not burdened with such a preparation containing steroids.

Discussion

Half of this operation was maintained at the senior medical corpsman or NCO level.

Part of the reason for this was to maintain counterpart parity since our counterpart ARVN unit was unable to furnish a doctor to accompany the civic action visits. And, of course, this was not unexpected since there are so few doctors available to ARVN. Furthermore it is difficult for an American physician to work at his accustomed proficiency due to the language barrier. Of course a history is the most important diagnostic tool, and even with a good interpreter the history taking process is slow and inaccurate. Diagnosis was further impeded by the lack of laboratory facilities. On the other hand, the good ARVN NCO medic can operate very efficiently at his own level in the civic action setting, and with a little guidance and instruction can do an excellent job. Because of the greater efficiency of this latter type of operation, we molded our program around the ARVN NCO medic. During the change-over to this final method, there were only minor variations in the monthly patterns of diagnosis and prescription. One or two NCO's supported by about 4 privates made an ideal team. But supervision by a medical officer is necessary in this type of program. During the initial period of medical civic action, a physician should attend the team every day. Later, when the competence of the NCO in charge has been established, weekly attendance by a medical officer should suffice. In our experience, a variable degree of effort was required of the American advisor depending on the enthusiasm of the ARVN counterpart unit. We produced a small training booklet in English and Vietnamese to help orient our counterpart unit to useful procedures for maintaining a village sick call program especially with regard to diagnosis and treatment of common conditions and maintenance of supplies. Although most of the effort was directed towards curative medicine, it is obvious that a medical civic action program offers real opportunities for preventive medicine.

The diagnostic experience of our team coincided fairly well with that of the other

medical civic action teams in South Viet Nam when it was presented at the MAAG medical conference of 3-4 December 1963. And, I believe that most of us concurred in the broad usefulness of a short list of medicaments, though the lack of pediatric medications was likewise a hindrance to all. The experience of our team coincided with the results of the *Republic of Vietnam Nutrition Survey*¹ which pointed out that thiamine deficiency in varying severity is the most prevalent nutritional disorder and also that the common anemia is not usually due to inadequate dietary intake of iron.

The ultimate success of any civic action program depends on the permanence of local improvements and the consequent improvement of rapport between the national government and the local population. That this is not easy to achieve is attested to by the failure of three consecutive programs of civic action in Laos.² Immediate local success depends on the good will of the village leader who may not always be the designated village chief.³ If a village health worker is available, he should be integrated fully into the program to achieve permanent local improvement in village health care. Our advisory unit was discontinued after eight months of operation; and at that time, our counterpart unit was able to maintain the program independently with only occasional MAAG assistance. Since I did not speak the local language, it was difficult to personally evaluate how well our program objective was fulfilled.

Finally, two features of this medical civic action program were sometimes worrisome to the American physician involved. First of all was the frequent inability to deal effectively under the existing circumstances with disease requiring chronic treatment such as tuberculosis. And second was the question of whether there might not be an increase in the prestige of the villager and the team if the patient were allowed to make at least a token remuneration. This point is brought up in light of the experience of others in Southeast Asia.⁴

Summary

The field experience of a military advisory medical civic action team in the Republic of Viet Nam has been presented. The team made 121 village visits and saw 20,079 patients. The frequency of the 10 most common diagnoses is tabulated, and it is pointed out that aside from helminthiasis, tropical diseases as a group were not a problem in the coastal areas. The frequency of use of medications is presented, and it seems apparent that a relatively short list of medicaments can cover nearly all the problems encoun-

tered in the field. The difficulties in achieving long term success in a civic action program are mentioned.

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